

PCT

RAW SEQUENCE LISTING DATE: 07/29/2004
PATENT APPLICATION: US/10/502,344 TIME: 16:03:25

Input Set : A:\55084US-sequencelisting.ST25.txt

Output Set: N:\CRF4\07292004\J502344.raw

```
3 <110> APPLICANT: ROSS, Richard
      4
             ARTYMIUK, Peter
             SAYERS, Jon
      7 <120> TITLE OF INVENTION: Polypeptide Variants
      9 <130> FILE REFERENCE: 100042.55084US
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/502,344
     12 <141> CURRENT FILING DATE: 2004-07-23
     14 <150> PRIOR APPLICATION NUMBER: PCT/GB03/00253
    15 <151> PRIOR FILING DATE: 2003-01-24
    17 <150> PRIOR APPLICATION NUMBER: GB 0201679.8
    18 <151> PRIOR FILING DATE: 2003-01-24
    20 <160> NUMBER OF SEQ ID NOS: 22
    22 <170> SOFTWARE: PatentIn version 3.2
    24 <210> SEQ ID NO: 1
    25 <211> LENGTH: 6
    26 <212> TYPE: PRT
    27 <213> ORGANISM: Artificial
    29 <220> FEATURE:
    30 <223> OTHER INFORMATION: Artificial linker
    32 <400> SEQUENCE: 1
    34 Leu Val Pro Arg Gly Ser
    35 1
    38 <210> SEQ ID NO: 2
    39 <211> LENGTH: 5
    40 <212> TYPE: PRT
    41 <213> ORGANISM: Artificial
    43 <220> FEATURE:
    44 <223> OTHER INFORMATION: Artificial linker
    46 <400> SEQUENCE: 2
    48 Ser Gly Gly Gly Gly
    49 1
    52 <210> SEO ID NO: 3
    53 <211> LENGTH: 10
    54 <212> TYPE: PRT
    55 <213> ORGANISM: Artificial
    57 <220> FEATURE:
    58 <223> OTHER INFORMATION: Artificial linker
    60 <400> SEQUENCE: 3
    62 Pro Gly Ile Ser Gly Gly Gly Gly Gly
    66 <210> SEQ ID NO: 4
    67 <211> LENGTH: 16
    68 <212> TYPE: PRT
```



RAW SEQUENCE LISTINGPATENT APPLICATION: **US/10/502,344**DATE: 07/29/2004 TIME: 16:03:25

Input Set : A:\55084US-sequencelisting.ST25.txt

Output Set: N:\CRF4\07292004\J502344.raw

```
69 <213> ORGANISM: Artificial
71 <220> FEATURE:
72 <223> OTHER INFORMATION: Artificial linker
74 <400> SEQUENCE: 4
76 Leu Val Pro Arg Gly Ser Pro Gly Ile Ser Gly Gly Gly Gly Gly Gly
77 1
                                       10
80 <210> SEQ ID NO: 5
81 <211> LENGTH: 8
82 <212> TYPE: PRT
83 <213> ORGANISM: Artificial
85 <220> FEATURE:
86 <223> OTHER INFORMATION: Artificial linker
88 <400> SEQUENCE: 5
90 Gly Gly Gly Ser Ser Ser
91 1
94 <210> SEQ ID NO: 6
95 <211> LENGTH: 5
96 <212> TYPE: PRT
97 <213> ORGANISM: Artificial
99 <220> FEATURE:
100 <223> OTHER INFORMATION: Artificial linker
102 <400> SEQUENCE: 6
104 Gly Gly Gly Ser
105 1
108 <210> SEQ ID NO: 7
109 <211> LENGTH: 28
110 <212> TYPE: DNA
111 <213> ORGANISM: Artificial
113 <220> FEATURE:
114 <223> OTHER INFORMATION: Artificial linker
116 <400> SEQUENCE: 7
117 aggcgaattc ttcccaacca ttccctat
                                                                           28
120 <210> SEQ ID NO: 8
121 <211> LENGTH: 39
122 <212> TYPE: DNA
123 <213> ORGANISM: Artificial
125 <220> FEATURE:
126 <223> OTHER INFORMATION: Artificial linker
128 <400> SEQUENCE: 8
                                                                           39
129 cttcaagagg cggcggccgc ttcccaacca ttcccttat
132 <210> SEQ ID NO: 9
133 <211> LENGTH: 35
134 <212> TYPE: DNA
135 <213> ORGANISM: Artificial
137 <220> FEATURE:
138 <223> OTHER INFORMATION: Artificial linker
140 <400> SEQUENCE: 9
                                                                           35
141 ttccaagctt catcagaagc cacagctgcc ctcca
144 <210> SEQ ID NO: 10
```

RAW SEQUENCE LISTING

DATE: 07/29/2004 PATENT APPLICATION: US/10/502,344 TIME: 16:03:25

Input Set : A:\55084US-sequencelisting.ST25.txt

Output Set: N:\CRF4\07292004\J502344.raw

145 <211> LENGTH: 24 146 <212> TYPE: DNA 147 <213> ORGANISM: Artificial 149 <220> FEATURE: 150 <223> OTHER INFORMATION: Artificial linker 152 <400> SEQUENCE: 10 153 caaagctagc ggtggcatgc aagt 24 156 <210> SEQ ID NO: 11 157 <211> LENGTH: 30 158 <212> TYPE: DNA 159 <213> ORGANISM: Artificial 161 <220> FEATURE: 162 <223> OTHER INFORMATION: Artificial linker 164 <400> SEQUENCE: 11 165 aagcttgaat tcctattacg tcgactctag 30 168 <210> SEQ ID NO: 12 169 <211> LENGTH: 35 170 <212> TYPE: DNA 171 <213> ORGANISM: Artificial 173 <220> FEATURE: 174 <223> OTHER INFORMATION: Artificial linker 176 <400> SEQUENCE: 12 35 177 cagctgctgt ggcttcggcg gccgcaggtg gcgga 180 <210> SEQ ID NO: 13 181 <211> LENGTH: 27 182 <212> TYPE: DNA 183 <213> ORGANISM: Artificial 185 <220> FEATURE: 186 <223> OTHER INFORMATION: Artificial linker 188 <400> SEQUENCE: 13 189 aatgcctcga ggaattcgga acctccg 27 192 <210> SEQ ID NO: 14 193 <211> LENGTH: 36 194 <212> TYPE: DNA 195 <213> ORGANISM: Artificial 197 <220> FEATURE: 198 <223> OTHER INFORMATION: Artificial linker 200 <400> SEQUENCE: 14 201 gggaaactcg aggtgcccat ccaaaaagtc caagat 36 204 <210> SEQ ID NO: 15 205 <211> LENGTH: 39 206 <212> TYPE: DNA 207 <213> ORGANISM: Artificial 209 <220> FEATURE: 210 <223> OTHER INFORMATION: Artificial linker 212 <400> SEQUENCE: 15 39 213 gggaaagtcg actctctaga gcacccaggg ctgaggtcc 216 <210> SEQ ID NO: 16 217 <211> LENGTH: 573

RAW SEQUENCE LISTING DATE: 07/29/2004 PATENT APPLICATION: US/10/502,344 TIME: 16:03:25

Input Set : A:\55084US-sequencelisting.ST25.txt
Output Set: N:\CRF4\07292004\J502344.raw

218	<212>	TY	PE:	DNA													
219	<213>	OR	GAN]	SM:	Homo	o saj	pien	s									
221	<400>	SE	QUEN	ICE:	16												
222	ttccc	aac	ca t	tcc	ctta	to d	aggc	tttt	t ga	caac	gcta	gtc	taag	cgc	ccat	cgtctg	60
	ttcccaacca ttcccttatc caggettttt gacaacgeta gtctccgcgc ccatcgtctg caccagetgg cctttgacac ctaccaggag tttgaagaag cctatatccc aaaggaacag																
	aagtattcat teetgeagaa eeceeagaee teeetetgtt teteagagte tatteegaea																
	ccctccaaca gggaggaaac acaacagaaa tccaacctag agctgctccg catctccctg																
	ctgctcatcc agtcgtggct ggagcccgtg cagttcctca ggagtgtctt cgccaacagc																
	ctggtgtacg gcgcctctga cagcaacgtc tatgacctcc taaaggacct agaggaaggc																
	atccaaacgc tgatggggag gctggaagat ggcagccccc ggactgggca gatcttcaag																
	cagacctaca gcaagttcga cacaaactca cacaacgatg acgcactact caagaactac																
	gggctgctct actgcttcag gaaggacatg gacaaggtcg agacattcct gcgcatcgtg																
	cagtgccgct ctgtggaggg cagctgtggc ttc										573						
	<210> SEQ ID NO: 17																
	<211> LENGTH: 42																
245	5 <212> TYPE: DNA																
246	<213>	OR	GAN]	SM:	Homo	o sai	oien	s									
	<400>					•	•										
						cc q	aqcat	ttaa	c qq	caato	aaca	qc					42
	ttagtgccgc gcggcagtcc gggcattggc ggcggtggcg gc <210> SEQ ID NO: 18																
	<211>																
254	54 <212> TYPE: PRT																
255	<213>	OR	GAN1	SM:	Art:	ific:	ial										
257	<220>	FE	ATUF	RE:													
258	<223>	ОТ	HER	INF	ORMA!	rion	: Ar	tifi	cial	lin	ker						
260	<400>	SE	QUEN	ICE:	18												
262	Phe F	ro	Thr	Ile	Pro	Leu	Ser	Arg	Leu	Phe	Asp	Asn	Ala	Ser	Leu	Arg	
263					5			_		10	_				15		
266	Ala H	lis .	Arg	Leu	His	Gln	Leu	Ala	Phe	Asp	Thr	Tyr	Gln	Glu	Phe	Glu	
267			_	20					25					30			
270	Glu A	la	Tyr	Ile	Pro	Lys	Glu	Gln	Lys	Tyr	Ser	Phe	Leu	Gln	Asn	Pro	
271			35					40		·			45				
274	Gln T	hr.	Ser	Leu	Cys	Phe	Ser	Glu	Ser	Ile	Pro	Thr	Pro	Ser	Asn	Arg	
275	5	0					55					60					
278	Glu G	lu	Thr	${\tt Gln}$	Gln	Lys	Ser	Asn	Leu	Glu	Leu	Leu	Arg	Ile	Ser	Leu	
279	65					70					75					80	
282	Leu L	eu	Ile	Gln	Ser	Trp	Leu	Glu	Pro	Val	Gln	Phe	Leu	Arg	Ser	Val	
283					85	_				90				_	95		
286	Phe A	la .	Asn	Ser	Leu	Val	Tyr	Gly	Ala	Ser	Asp	Ser	Asn	Val	Tyr	Asp	
287				100			_	_	105		_			110	_	-	
	Leu L	eu :	Lys	Asp	Leu	Glu	Glu	Gly	Ile	Gln	Thr	Leu	Met	Gly	Arq	Leu	
291			115	-				120					125	-	~		•
294	Glu A	sp (Gly	Ser	Pro	Arq	Thr	Gly	Gln	Ile	Phe	Lys	Gln	Thr	Tyr	Ser	
295		30	-			_	135	•				140			•		
	Lys P		qaA	Thr	Asn	Ser		Asn	Asp	Asp	Ala	Leu	Leu	Lys	Asn	Tyr	
	145		-			150			-	-	155			4		160	
	Gly L	eu :	Leu	Tyr	Cys		Ara	Lys	asA	Met		Lys	Val	Glu	Thr		
303	•			-	165		,	4	-	170	-				175		
	Leu A	ra	Ile	Val		Cys	Ara	Ser	Val		Glv	Ser	Cys	Glv			
						-12	3				1		-10	1			

RAW SEQUENCE LISTING

DATE: 07/29/2004 PATENT APPLICATION: US/10/502,344 TIME: 16:03:25

Input Set : A:\55084US-sequencelisting.ST25.txt

Output Set: N:\CRF4\07292004\J502344.raw

307	180	185	190									
310	<210> SEQ ID NO: 19											
311	<211> LENGTH: 14											
312	<212> TYPE: PRT											
313	<213> ORGANISM: Artificial											
315	<220> FEATURE:											
316	<223> OTHER INFORMATION: Artificial linker											
318	<400> SEQUENCE: 19											
320	Leu Val Pro Arg Gly Ser Pro	Gly Ile Gly Gly	Gly Gly Gly									
321	1 5	10										
	<210> SEQ ID NO: 20											
325	<211> LENGTH: 438											
326	<212> TYPE: DNA											
327	<213> ORGANISM: Homo sapiens											
329	<400> SEQUENCE: 20											
330	gtgcccatcc aaaaagtcca agatga	acacc aaaaccctca	tcaagacaat tgtcaccagg	60								
332	atcaatgaca tttcacacac gcagto	cagtc tcctccaaac	agaaagtcac cggtttggac	120								
334	ttcattcctg ggctccaccc catcct	tgacc ttatccaaga	tggaccagac actggcagtc	180								
336	taccaacaga tcctcaccag tatgcc	cttcc agaaacgtga	tccaaatatc caacgacctg	240								
338	gagaacctcc gggatcttct tcacgt	tgctg gccttctcta	agagetgeea ettgeeetgg	300								
340	gccagtggcc tggagacctt ggacag	gcctg gggggtgtcc	tggaagcttc aggctactcc	360								
342	acagaggtgg tggccctgag caggct	tgcag gggtctctgc	aggacatgct gtggcagctg	420								
344	gacctcagcc ctgggtgc			438								
347	<210> SEQ ID NO: 21											
348	<211> LENGTH: 447											
349	<212> TYPE: DNA											
350	<213> ORGANISM: Homo sapiens	S										
352	<400> SEQUENCE: 21											
353	gtgcccatcc aaaaagtcca agatga	acacc aaaaccctca	tcaagacaat tgtcaccagg	60								
	atcaatgaca tttcacacac gcagto			120								
357	ttcattcctg ggctccaccc catcct	tgacc ttatccaaga	tggaccagac actggcagtc	180								
359	taccaacaga tectcaccag tatgeettee agaaacgtga tecaaatate caacgacetg 2											
361	gagaacetee gggatettet teacgtgetg geetteteta agagetgeea ettgeeetgg 300											
	gccagtggcc tggagacctt ggacagcctg gggggtgtcc tggaagcttc aggctactcc											
365	acagaggtgg tggccctgag caggctgcag gggtctctgc aggacatgct gtggcagctg 420											
367	7 gacctcagcc ctgggtgctt agtgccg 447											
	370 <210> SEQ ID NO: 22											
	371 <211> LENGTH: 146											
372	372 <212> TYPE: PRT											
373	373 <213> ORGANISM: Artificial											
375 <220> FEATURE:												
376 <223> OTHER INFORMATION: Artificial linker												
	<400> SEQUENCE: 22											
	Val Pro Ile Gln Lys Val Gln	Asp Asp Thr Lys	Thr Leu Ile Lys Thr									
381		10	15									
	Ile Val Thr Arg Ile Asn Asp	Ile Ser His Thr	Gln Ser Val Ser Ser									
385	20	25	30									
	Lys Gln Lys Val Thr Gly Leu	Asp Phe Ile Pro	Gly Leu His Pro Ile									
389	35	40 .	45									

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 07/29/2004
PATENT APPLICATION: US/10/502,344 TIME: 16:03:26

Input Set : A:\55084US-sequencelisting.ST25.txt

Output Set: N:\CRF4\07292004\J502344.raw

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,18,19,22

VERIFICATION SUMMARY

DATE: 07/29/2004

PATENT APPLICATION: US/10/502,344

TIME: 16:03:26

Input Set : A:\55084US-sequencelisting.ST25.txt

Output Set: N:\CRF4\07292004\J502344.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application Number